powered on and the message is ready to be sent, the mobile terminal registers with the base station by broadcasting, as shown in step **105**, an origination message on one of the uplink access channels. Upon receiving the origination message, the base station broadcasts, as shown in step **107**, an assignment message to the mobile terminal on one of the downlink paging channels. This assignment message consists of an SSR channel assignment and an assigned time slot on the assigned SSR channel for use by the mobile terminal in communicating with the base station.

Upon receiving the assignment message, the mobile terminal tunes its transmitter, as shown in step **109**, to its assigned SSR channel, and stores both the SSR channel identifier and the time slot identifier in memory. The mobile terminal is now prepared to begin its data burst transmission to the base station.

FIG. **2** shows how a mobile terminal achieves packet data transmission on the uplink. As depicted in FIG. **2**, each mobile terminal is initially programmed to operate, as shown in step **201**, at its lowest power setting. Then using the information contained in the assignment message, the mobile terminal's transmitter broadcasts, as shown in step **203**, a synchronization message to the base station on the assigned SSR channel at the assigned time slot.

Once the mobile terminal broadcasts the synchronization message, an acknowledgement timer begins to run as shown in step **205**. If the base station does not send an acknowledgement message within a period of time set by the mobile terminal, as shown in step **207**, the acknowledgement timer expires. If the acknowledgement timer does expire as shown in step **209**, the power setting of the mobile terminal's transmitter is increased by X dB where (0<X<7) dB. After the power level is reset the message is rebroadcast, and the acknowledgement timer begins again.

Once the base station receives the synchronization message it synchronizes to the mobile terminal using the preamble in the synchronization message and then sends, as shown in step **211**, an acknowledgment to the mobile terminal. This acknowledgment is in the form of a channel assignment message containing a traffic channel and a send time. The channel assignment message is then broadcast by the base station to the mobile terminal on a response reservation channel (RR). Alternatively the paging channel could be used to broadcast the channel assignment message as well.

Upon receiving the channel assignment message, the mobile terminal tunes its transmitter to the assigned traffic channel and at the assigned send time transmits, as shown in step **213**, its data frames to the base station on a reverse traffic channel. A layer two ARQ (Automatic Repeat reQuest) protocol may be used to ensure that the data frames are received correctly and in sequence, as shown in step **215**.

FIG. **3** depicts the call termination mode which begins with the mobile terminal using the time slot assigned in the assignment message to broadcast, as shown in step **301**, a synchronization message on the SSR channel to the base station. Once the base station receives the synchronization message, the base station uses the preamble in the synchronization message broadcast by the mobile terminal to synchronize, as shown in step **303**, with the mobile terminal. The base station then assigns a traffic channel and a transmit time to the mobile terminal in a channel assignment message. This channel assignment message is subsequently broadcast on a response reservation channel by the base station to mobile terminal.

Upon receiving the channel assignment message, the mobile terminal tunes its transmitter to the assigned traffic channel and at the assigned send time transmits its call termination message on a reverse traffic channel to the base station, as shown in step **305**. Upon receiving the call termination message, the base station broadcasts, as shown in step **307**, an acknowledgement message to the mobile terminal on a forward traffic channel, and then deletes both the traffic channel and the SSR channel time slot assignments for that particular mobile terminal. Finally, upon receiving the message from the base station acknowledging the receipt of the call termination message, the mobile terminal, as shown in step **309**, turns off its transmitter and deletes both its SSR channel assignment and its time slot assignment, thereby terminating the call.

Particular attention is now paid in FIG. **4** to the way the frames on the SSR channel are divided first into frames and then into time slots. For example, FIG. **4***a* depicts the format of all the reverse TDMA channels on which the mobile terminal can broadcast, including the r SSR channels. FIG. **4***b* depicts the first SSR channel **401** further divided into s frames. FIG. **4***c* depicts the first frame of the first SSR channel **402** further divided into a series of t consecutive time slots.

As discussed above, the preferred embodiment of the invention functions by assigning a time slot on a certain SSR channel to each mobile terminal during the call orientation period. It should be noted that the SSR channel frame repeats itself after t SSR channel time slots.

An SSR channel PN code, or SSRC-PN, is assigned for each SSR channel in a sector of a given cell in which the mobile terminals are located. An SSRC-PN is a short code which is transmitted by the mobile terminal on its assigned SSR channel time slot. Because the same PN code is used on the SSR channel by all the mobile terminals in the same sector, only one receiver is required for every SSR channel used.

Since there is a one to one correspondence between the time slots of the SSR channel and the mobile terminals, it is not necessary that the mobile terminal's identity be transmitted in the time slot. Accordingly, the preamble transmitted on the SSR channel by a mobile terminal only needs to be long enough to provide initial synchronization. This results in the SSR channel time slots being long enough to allow k repetitions of the SSRC-PN in one time slot.

Therefore, when the mobile terminal transmits its preamble on its assigned SSR channel time slot, it will consist of k repetitions of the SSRC-PN. The reason for transmitting the preamble k times is to allow the base station to first detect energy on the SSR channel time slot so it can then acquire synchronization with the mobile terminal. A long PN code that differentiates different sectors is used to mask the SSRC-PN before transmission of the preamble on the time slot.

Once the base station detects energy on a given SSR channel time slot, thereby determining that the corresponding terminal is attempting to transmit data, the base station in turn transmits a message on one of the reservation response (RR) channels. FIG. **5** is a representation of the breakdown of the typical channels found on a forward link. For example, FIG. **5***a* depicts the format of all the forward link channels, including the e RR channels on which the base stations can broadcast. FIG. **5***b* depicts the first RR channel **501** divided into f frames. FIG. **5***c* depicts the first frame of the first RR channel **502** further divided into a series of g consecutive time slots.

It should be noted that the number of time slots on an RR channel may be larger or smaller than the number of time